Antaira Technologies

STM-604C Series

Industrial Modbus TCP (two Ethernet ports) to four Serial (232,422,485) RTU/ASCII Gateway

Quick Installation Guide

Version 1.0
(October 2018)

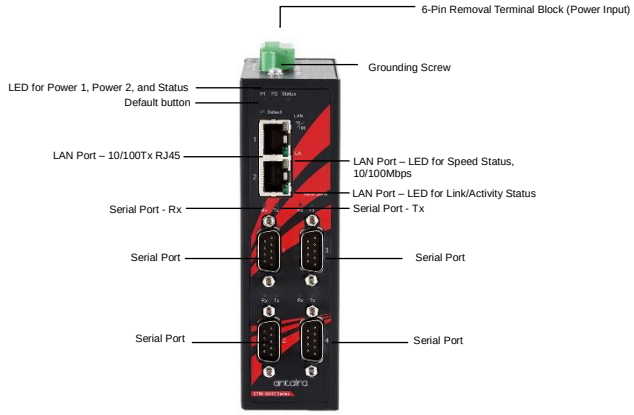
Tel: 1-844-268-2472
Fax: 1-714-671-9944
www.antaira.com

Package Check List

The package contains the following items:

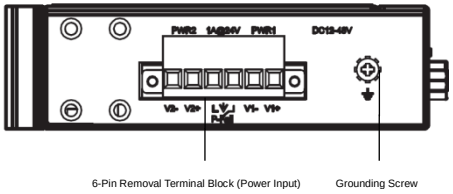
- 1 – Quick installation guide
- 1 – STM-604C(-T)
- 1 – DIN-Rail and wall mounting bracket set with screws

Front Panel Layout



Top Panel View

STM-604C Series' top panel is equipped with one 6-pin removal terminal block connector for dual DC power inputs (12~48VDC).



Product Overview

System Interface/Performance

- Provides 2*10/100 Mbps Ethernet ports for LAN redundancy, and 4*DB9 Serial port
- Integration of Modbus TCP and Modbus RTU/ASCII networks
- Supports up to 921.6 kbps, and any baud rate setting
- Supports up to 16 connections on each serial port under Modbus Master mode and 32 sessions under Modbus Slave mode.
- Software selectable RS-232/422/485 communication
- Built-in 15 KV ESD protection for all serial signals
- Automatic RS-485 data flow control
- Supports surge protection for D.C. power ports with line-to-line 2kV, and line-to-earth 4kV; for signal ports with 4kV.

Power Input & Connection

- DC 12 to 48V redundant power, with a 6-pin removal terminal block
- It is recommended to use a UL listed industrial power supply

Operating Temperature

- Standard operating temperature model: -10°C to 60°C
- Extended operating temperature model: -40°C to 70°C

Case/Installation

- IP30 protection
- DIN-Rail and wall mount design

LED Indicators

LED	Color	Description	
P1	Green	On	Power input 1 is active
		Off	Power input 1 is inactive, or power error condition exists
P2	Green	On	Power input 2 is active
		Off	Power input 2 is inactive, or power error condition exists
Status	Amber	On	The device server has been located by utility's location function
		Flashing	System is ready (1cycle/sec.)
		Off	System is not working
LAN Port 1-2 (Lower LED)	 Green	On	Link Up
		Flashing	Data Transfer
		Off	No Link
LAN Port 1-2 (Upper LED)	 Orange	On	100Mbps
		Off	10Mbps
Rx	Orange	On	Rx Data Transfer
		Off	No Data
Tx	Green	On	Tx Data Transfer
		Off	No Data

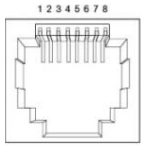
Quick Installation

Ethernet Ports

RJ45 Ports (Auto MDI/MDI-X)

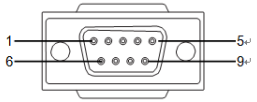
All RJ45 ports are auto-sensing for 10Base-T or 100Base-TX device connections. Please follow the wiring pin assignment table below for Ethernet port installation.

RJ45 Ethernet Port Pin Outs				
Pins	T568A Color	T568B Color	10Base-T, 100Base-TX	1000Base-T(X)
Pin 1	white/green stripe	white/orange stripe	Rx+	TP0+
Pin 2	green solid	orange solid	Rx-	TP0-
Pin 3	white/orange stripe	white/green stripe	Tx+	TP1+
Pin 4	blue solid	blue solid	unused	TP2+
Pin 5	white/blue stripe	white/blue stripe	unused	TP2-
Pin 6	orange solid	green solid	Tx-	TP1-
Pin 7	white/brown stripe	white/brown stripe	unused	TP3+
Pin 8	brown solid	brown solid	unused	TP3-



DB9 Ports

The pin assignment of RS-232/422/485 as below.



Pin	1	2	3	4	5	6	7	8	9
RS-232	DCD	RX	TX	DTR	GND	DSR	RTS	CTS	RI
RS-422	TX-			TX+	GND		RX+		RX-
RS-485	DATA-			DATA+	GND				

Power Input Wiring

Please follow the steps below to insert the power wire:

1. Insert the positive and negative wires into the **PWR1 (V1+, V1-)** and **PWR2 (V2+, V2-)** contacts on the terminal block connector as shown below in *Figure 1*.
2. Tighten the wire-clamp screws to prevent the wires from loosening, as shown below in *Figure 2*.

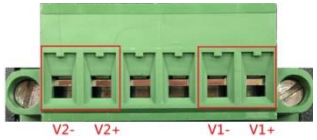


Figure 1

Figure 2

Industrial Switch Mounting

DIN-Rail Mounting

Please refer to *Figure 3* for a DIN-Rail bracket installation reference.

Follow the steps below for installing the industrial Modbus gateway on the DIN-Rail track:

1. Insert the top of the DIN-Rail on to the track as shown in *Figure 4.*
2. Lightly pull down the bracket on to the rail as shown in *Figure 5.*

Figure 3

3. Check if the bracket is mounted tightly on the rail.
4. To remove the industrial Modbus gateway from the rail, do the opposite from the steps above.

Figure 4

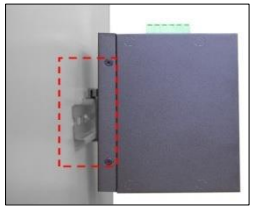


Figure 5

Wall Mounting

Follow the steps below to mount the industrial Modbus gateway using the wall mounting bracket as shown below in *Figure 6*.

1. Remove the DIN-Rail bracket from the industrial Modbus gateway by loosening the screws.
2. Place the wall mounting brackets on the top and bottom of the industrial Modbus gateway.
3. Use the screws to screw the wall mounting bracket on the industrial Modbus gateway.
4. Use the hook holes at the corners of the wall mounting bracket to hang the industrial Modbus gateway on the wall.
5. To remove the wall mount bracket, do the opposite from the steps above.

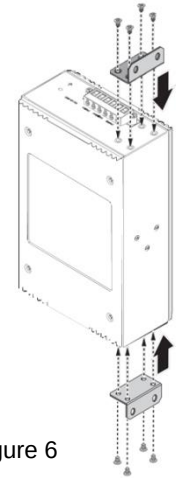


Figure 6

Software Utility

Please download the utility from Antaira website (www.antaira.com) to configure your Modbus gateway.

Field Maintenance and Service

- If the device requires servicing of any kind, the user is required to disconnect and remove it from its mounting. The initial installation should be done in a way that makes this as convenient as possible.
- Voltage/power lines should be properly insulated as well as other cables. Be careful when handling them so as to not trip over.
- Do not under any circumstance insert foreign objects of any kind into the heat dissipation holes located in the different faces of the device. This may not only harm the internal layout, but might cause harm to user as well.
- Do not under any circumstance open the device for any reason. Please contact your dealer for any repair needed or follow the instructions within the manual.

Warranty Policy

Warranty Conditions

Products supplied by Antaira Technologies are covered in this warranty for sub-standard performance or defective workmanship. The warranty is not, however, extended to goods damaged in the following circumstances:

(a) Excessive forces or impacts
(b) War or an Act of God: wind storm, fire, flood, electric shock, earthquake
(c) Use of unqualified power supply, connectors, or unauthorized parts/kits
(d) Replacement with unauthorized parts

RMA and Shipping Costs Reimbursement

Customers shall always obtain an authorized "RMA" number from Antaira before shipping the goods for repair or replacement.

- Within the warranty period (based on the invoice date), all parts and labor are free of charge to the customers.
- Customers are responsible for the cost of parts and labor, if the products are out of warranty.
- For RMA service, customers are responsible for the shipping expense for shipping the RMA unit(s) to Antaira. Antaira is responsible for the shipping expense via a ground service for the return repair/replace unit(s) back to customers.

Limited Liability

Antaira would not be held responsible for any consequential losses from using Antaira's product.

Warranty Period

5-Year Warranty

Antaira's Customer Service and Support

- Antaira's Technical Service & Support Centers:
  + 844-268-2472 (Antaira US Headquarter)
  + 48-22-862-88-81 (Antaira Europe Office)
  + 886-2-2218-9733 (Antaira Asia Office)

- Antaira's Web Sites & Repair/Support Emails:
  www.antaira.com / support@antaira.com
  www.antaira.eu / info@antaira.eu
  www.antaira.com.tw / info@antaira.com.tw

***Any changes will be announced on the Antaira website.**